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*11-13-02**11/14/02**APPEAL*  
*BRIEF*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
Before the Board of Patent Appeals and Interferences

In re Application of

Sergei Mikhailovich SAFRONOV et al

Art Unit: 3713

S. N. 09/601,913

Examiner: A. P. Rada

International S.N.: PCT/RU99/00144

Filed: August 8, 2000

International Filing Date: April 29, 1999

For: METHOD FOR PLAYING A SPACE GAME  
AND DEVICES FOR REALIZING THIS METHOD

*Application accepted**Mail date = 5/6/02**C of mail date = 4/19/02*

BRIEF ON BEHALF OF APPELLANT

Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:



Stephen Marcus  
Special Program Examiner  
Group 3700

*11/14/02*

This is an appeal from the Examiner's final rejection mailed  
September 13, 2001.

REAL PARTY IN INTEREST

The real party in interest is Sergei Mikhailovich SAFRONOV,  
UL. Malysheva, D.19, Korp.1, Kv.20, Moscow, Russian Federation  
119263, the assignee of the application (and also a co-inventor).

RELATED APPEALS AND INTERFERENCES

No related appeals or interferences are known to appellant,  
the appellant's legal representative, or assignee, which will  
directly affect or be directly affected by or have a bearing on  
the Board's decision in the pending appeal.

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STATUS OF CLAIMS

Claims 1-16 are pending in the application, and are rejected, and are the claims under appeal. Appellant wishes to prosecute this appeal with respect to claims 1-16. An amendment after final was not entered by the Examiner.

This application was originally filed August 8, 2000, as an entry into the national phase in the U.S. of a PCT application. A final office action was issued September 13, 2001. Thus, this appeal was filed.

STATUS OF AMENDMENTS

The amendment after final was not entered and is therefore not the basis of the arguments on appeal. Applicants proceed on the basis of the amendment in response to the first office action having been entered.

SUMMARY OF THE INVENTION

This invention relates to playing a space game, wherein objects in outer space are employed to provide the elements of chance or upon which the outcome of the game may be determined. For example, referring to FIG. 1, and the specification page 7, lines 10 and following, game elements 1 are capable of moving in space and their interaction and relation to a game assessment element 3 is determined by game registration facility 2.

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Many game variations are possible thereby. The game elements 1 may comprise, for example, space vehicles (page 7, line 21) racing space vehicles (page 10, line 20), space waste (page 13, line 21), small particles originated from explosion of a carrier rocket (page 15, lines 26-27), articles of artificial, for instance, technogenic, and/or natural origin, such as, small space objects, meteorite particles (page 17, lines 17-18).

The game registration facility 2 may comprise, for example, a command-and-measuring system (page 10, line 5), a space object movement detection device (page 10, line 22), a facility adapted to register hitting the game fields on the means 3 by game elements 1 (page 13, lines 18-19) such as hit detection instruments, such as, for instance, particle detectors to sense the facts of interaction between the panel and particles moving at appropriate relative speeds (page 13, line 32 - page 14 line 2), space particle detectors employed in the project of "Vega" interplanetary SV in flight to Halley's Comet, or a meteorite particle detector mounted on USA satellites "Pegas 1, 2, 3", LDEF, the data obtained being transmitted to the Earth (page 14, lines 9-12).

As for the game assessment element 3, it can comprise for instance, space objects of technogenic origin, such as a satellite or space waste or of natural origin such as a planet or small space object (page 8, lines 11-14).

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The game may be played based on the time of approaching the assessment element based on time (e.g., getting there first, or getting there last) or speed of interacting with the element (hit speed), performing some interaction with the element (coupling, changing orbit thereof, etc.) (page 11 line 27 and following). The game elements can also be space objects such as space waste, or meteorites, and the assessment element is a portion of a space vehicle, for example, and the collision of the space waste with the space vehicle can be what is registered.

#### THE ISSUES

The broad issue presented in this appeal is whether the Examiner's final rejections of claims 1-16 are correct. The issue may be stated more narrowly as:

1. Whether claims 1-16 contain subject matter under 35 U.S.C. §112, first paragraph, that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is not nearly connected, to make and/or use the invention.
2. Whether claims 1-16 are indefinite under 35 U.S.C. §112, second paragraph for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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NOT APPLICABLE

3. Whether the objection to the drawings under 37 CFR 1.83(a) is proper.

#### GROUPING OF CLAIMS

Claims 1-12 and 16 stand or fall together and claims 13-15 stand or fall together. Claims 1-12 and 16 do not necessarily stand or fall with claims 13-15, as the claims 13-15 include the term technogenic which the Examiner has raised as an issue.

*A request for withdrawal of rejection is argued under 37 CFR*  
ARGUMENT

1. Claims 1-16 are in compliance with 35 U.S.C. §112, first paragraph.

The Examiner states that in claims 1, 12 and 13, the specification does not show how one of ordinary skill in the art could "register a game event occurrence using a facility by a spatial position".

Applicants respectfully disagree with the Examiner's assertion here. The specification states, for example, at page 4, line 21, through page 5, line 5, as examples of using spatial position:

said registering of a game event occurrence is effected by a space vehicle which is the fastest to reach the position of the game event assessment means;

the game event assessment means may be a technogenic object relating to space waste which is captured on reaching its position;

said registering of a game event occurrence is effected by a space vehicle which has gone the longest distance to the game event assessment means;

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said registering of a game event occurrence is effected by a space vehicle which has gone at the shortest distance from the game event assessment means;

the game event assessment means may be one of the solar system planets;

the game event assessment means may be a space vehicle launched to cosmic space prior to said accepting bets on a registration of a game event.

These examples all relate to spatial position. It is respectfully submitted that this would be quite clear to anyone of skill in the art, and even to one not of skill in the art. The first to reach a position might be the winning object, the first to capture space waste, the space vehicle going the farthest, the space vehicle going the shortest. These are all clear examples which more than meet the requirements of 35 U.S.C. §112, first paragraph. It is therefore respectfully believed that the claims are in compliance with the statute. It is even stated in the background of the invention that U.S. patent 5,011,157 shows registering a game event occurrence using a facility by a spatial position of the game elements.

The Examiner asks how the interest of the game is captured, what is the benefit, how the assessment means get disposed in space. Applicants have attempted to address the Examiner's questions, but feel that their arguments are not being considered. What is the benefit of any game? How is the interest of any player in a game captured? It is the hope of

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winning, the thrill of competition. These are underlying social aspects of playing games which are the assumed reasons for having a game. Why must applicants explain why a person would want to play a game? It is an unfair requirement which is being applied to applicants.

The Examiner asks "how the game assessment means are disposed in cosmic space out side the Earth". Applicants are somewhat astounded that they would be required to answer such a question. The specification clearly states that the game assessment means might be space vehicles, meteorites, or space debris, or a planet of the solar system, etc. A person of ordinary skill in the art would understand how such items get into cosmic space or that they are already there existing. Even small children understand that such items are in space either by their creation or by launching into space from Earth. Applicants are being unfairly rejected. The specification clearly sets out clear and good examples of these things. Applicants are not required by the statute to teach how one builds a space vehicle and launches it into space. Applicants are not required by the statute to teach how meteorites come into existence. Applicants are not required by the statute to explain the creation and placement of the planets of the solar system. Does an applicant patenting a mechanical device have to explain the process of making a gear for the mechanical device? Does an applicant

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patenting an electronic instrument have to explain the process of how the electricity to power the device is generated? How the battery operates? Does an applicant patenting shipping protectors that fit within a box have to describe in detail how the craft paper which is used to build a cardboard box is manufactured? No. Similarly, here, applicants have given examples of items which would function for the claimed elements, which are more than sufficient to enable one of ordinary skill in the art to practice the invention, and are not required to provide explanation of what the Examiner seems to be asserting. A space vehicle or meteorite or space waste is already there in space. How it got there is not necessarily what is being claimed, and therefore need not be taught by the specification. Anyone reading this specification can understand. Were the standard that the Examiner is applying to applicants here the standard for any patent application, even simple applications would be thousands of pages long. A patent on a wooden pencil would have to describe how the wood came into existence (i.e., how it was grown, and logged, and milled and shaped and transported, etc.).

With regard to claim 16, the Examiner asserts that "the specification does not show how one of ordinary skill in the art could have "movable objects randomly moving in cosmic space". This concept is clearly set forth in the specification. From

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reading the specification, it is quite apparent that what is being referred to here are objects which are in space in movement. Anyone having the slightest knowledge of the existence of outer space would understand that this refers to items which are in space and in motion. Even if one were not aware of this, applicants' specification provides examples of what could be used to accomplish this. Referring to page 5, lines 11-14, several examples are given:

the movable objects may be meteorite particles;  
the movable objects may be particles of technogenic origin, such as space waste.

How can it possibly be said that these examples above would not enable one skilled in the art to make the invention? These are clear and exact examples that even one unskilled in the art would understand. Applicants respectfully believe that the standard of 35 U.S.C. §112, first paragraph has been met.

The Examiner further states that the specification does not show how one of ordinary skill in the art could have a "registration facility being mounted on an external surface of the space vehicle and adapted to detect a game event". Again, applicants respectfully submit that they have complied with the requirements of the stated statute. For example, referring to the specification at page 17, line 16 through page 19, line 15, it is stated:

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Owing to the fact that the game is conducted with game elements 1 of artificial, for instance, technogenic, and/or natural origin, such as, small space objects, meteorite particles, the game registration facility 2 should be installed on the external surface of the means 3 (SV) and adapted to detect a game event occurrence in cosmic space and transmit it to the Earth.

The facility 2 must meet the following requirements.

Used as a game field are panels which are part of a surface of the game event assessment means 3 (SV), the panels being specially oriented in space (for instance, all panels are in parallel with the orbit plane) and having the same characteristics of the probability of being hit by the game elements 1 (SPs), including equal areas, the absence or equal degree of shadowing by structure components, thickness, sensitivity of sensors, response time and the recovery ability. If required, nonoperable panels may be replaced by spare panels. The spare panels are introduced in the game instead of those failed.

Means for registration of hitting the means 3 by the game elements 1 should be adapted to register hits by space objects of artificial, for instance, technogenic origin, and/or natural origin, and can be configured as sensors based on various physical principles, with subsequent integration and reliable recording on non-rewritable media (for instance, photographic recording).

A dimension of a game field surface is selected prior to conducting the game by selecting an area, thickness of panels, sensitivity of sensors. The facility 2 is adjusted to such a minimum dimension of a particle registered, for which a game event occurrence (panel breakdown) takes place within an acceptable time, for instance, every five minutes. The equipment is adjusted to maximum participle velocities possible (for instance, 19 km/second for SPs in a satellite orbit), this eliminating the risk of passing fast particles undetected.

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The detectors should have a threshold level to eliminate responses to hits by particles which separate while launching the SV and exhibit a lower relative velocity (for instance, less than 100 i/s) due to the laws of celestial mechanics.

Employed in detectors (the aforementioned "Foton", "Dusma", SP-2 instruments) may be the following factors:

Processes of inducing a charge and current in a film capacitor when the material evaporates being hit by an SP, ionization of the panel owing to thermal energy liberation at impact and electrical breakdown between plates of a capacitor which is substantially the game field surface;

When the capacitor plates are short-circuited inside a crater by metal droplets, the bridges are fused by a short-time current pulse from an SV on-board power source.

At a high likelihood, total damages (craters) within a predetermined existence time will not substantially reduce the panel area, and, moreover, due to uniform flow of the game elements 1 (SP) the area of all panels is being varied, in average, at the same amount;

A burst caused by film breakdown is detected by spectrometers, this allowing to differentiate it from the optics exposure to the Sun, the Moon and stars, as well as to television cameras, so that a hit place of a game element 1 can be located. A chemistry of fast particles which generate a plasma cloud at film breakdown can be defined by spectral methods;

Acoustic sensors are located over a perimeter of every panel (over the game field perimeter), and the kinetic energy of particles can be determined by the acoustic pulse energy. Thus, location data of breakdown points is obtained by a pulse arrival delay;

Using film capacitors as the sensors allows the substantially instantaneous registration of particles which breakdown a film of any size. In this case the use is made of a principle of capacitor discharge

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through the plasma generated as the result of evaporation of a film and SP material at the instant of film breakdown.

How can it be that the Examiner asserts that there is no showing of how one of ordinary skill in the art could have a registration facility as claimed, when, as noted above, very specific examples of such registration facilities are given? A specific example of using film capacitors as sensors is given. Another example of using acoustic sensors is given.

The cited text above mentions that panels which are part of a surface of the game event assessment means 3 (SV) may be used. (Here, SV means "space vehicle"). Thus, it is clear to the reader, whether skilled in the art or not, that the surface of the space vehicle can be provided with sensors, such as film capacitors or acoustic sensors, which will register collision with meteorites or space waste.

Applicants have set forth examples of how the inventions might be accomplished. It is respectfully submitted that the rejection is not warranted.

2. Claims 1-16 are in compliance with 35 U.S.C. §112, second paragraph.

It is well settled that the claims are to be interpreted in light of the specification. The Examiner states that claims 1, 3 and 5-6 further define "the game event assessment means". The Examiner then states that the "independent claims from which

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these claims depend from refer to the game elements to at least one game event assessment means". The Examiner then asks "What is the game event assessment means? What is its function(s)?" "What is the function and process?" "What is being assessed?"

These things have been clearly set out in the specification with examples.

Specific recitations in the specification of examples of applicants' game event assessment means" are:

the game event assessment means may be a technogenic object relating to space waste which is captured on reaching its position (page 4, lines 24-25)

the game event assessment means may be one of the solar system planets (page 5, lines 1-2)

the game event assessment means may be a space vehicle launched to cosmic space prior to said accepting bets on a registration of a game event (page 5, lines 3-5)

the game event assessment means may be an external surface of a space vehicle divided into game fields (page 5, lines 6-8)

As for the game elements:

the game elements being movable objects which are randomly moving in cosmic space (page 5, lines 8 and 9)

the movable objects may be meteorite particles (page 5, line 12)

the movable objects may be particles of technogenic origin, such as space waste (page 5, lines 13-14)

the game elements are space vehicles (page 5, lines 17-18)

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In making the rejection under rejected under 35 U.S.C. §112, second paragraph, the Examiner simply repeats the same rejection made in the first office action and dismisses applicants' responsive arguments as having been fully considered but they are not persuasive. That is the sum total of the Examiner's explanation of the review of applicants' response to the rejections.

And yet, applicants' made specific and sincere responses to the Examiner's rejections, only to be summarily dismissed without explanation.

Applicants submit herewith a letter in Russian (with an English translation) addressed to applicants' Russian patent attorney (S. V. Lovtsov) from A.I.Burganski, Assistant to the General Designer, Scientific and Technical Instructor of the Departments for Control systems and Space Vehicles Devices, Candidate of Technical Science, Doctor of Electrotechnology, Member of Academy of Electrotechnology, asserting that the specification is clear and enabling to one of skill in the art.

Further submitted herewith in Russian, with an English translation is a document entitled Conclusion of Scientific and Technical Council regarding the application PCT/RU99/00144, from the International Payloads Science Technology Center of the Russian Federation.

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These documents are further evidence of applicants' claims being allowable.

The Examiner asks "what are the various technical characteristics". Applicants are unclear as to what this question is directed, as this term does not appear in the claims.

The Examiner asks what is a technogenic object. Applicants have responded previously that technogenic means man made, and have submitted examples of its use in aeronautics. Also, on review of the specification, one can derive this meaning from the term's use in the specification, for example:

the game event assessment means may be a technogenic object relating to space waste which is captured on reaching its position (page 4, lines 24-25)

the movable objects may be particles of technogenic origin, such as space waste (page 5, lines 13-14)

the technogenic object may be a space vehicle (page 6, line 6)

the technogenic object may be space waste (page 6, line 7)

space objects of technogenic origin, such as a satellite or space waste (page 8, lines 11-12)

being a technogenic object, for instance, one of space vehicles or space waste (page 12, lines 23-24)

space objects of artificial, for instance, technogenic, and/or natural origin, for instance, small space objects, meteorite particles (page 13, lines 10-12)

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of artificial, for instance, technogenic,  
and/or natural origin (page 13, lines 19-20)

the game is conducted with game elements 1 of  
artificial, for instance, technogenic, and/or  
natural origin, such as, small space objects,  
meteorite particles (page 17, lines 16-18)

space objects of artificial, for instance,  
technogenic origin, and/or natural origin  
(page 18, lines 2-3).

In view of all these above uses of the term, even if the  
applicants' submission of outside evidence of the definition of  
the term were not admitted, it is clear from these examples of  
use of the term in the specification what is encompassed by the  
term "technogenic". Applicants previously submitted evidence to  
the Examiner of the definition of the term, which the Examiner  
did not even acknowledge. Applicants again assert that  
"technogenic" is a well known term to those skilled in  
aeronautics and space, for example

The Examiner questions the term "longest distance to the  
game event assessment device", asking where the start and end  
point are and again questioning "What is the game assessment  
device." Applicants respectfully submit that these terms are  
clear and definite, and as noted hereinabove, are defined with  
multiple examples in the specification. The Examiner also wants  
applicant to define how acoustic sensors work and how kinetic  
energy of particles can be accomplished through using these. It

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is respectfully submitted that anyone of ordinary skill in the art will be able to practice the invention based on this disclosure. For example, the greater the kinetic energy, the "louder" the impact that would be sensed by an acoustic sensor. One of ordinary skill in the art knows this, and does not need a detailed dissertation on the operation theory of acoustic sensors.

3. The drawings are acceptable under 37 CFR 1.83(a).

The Examiner objects to the drawings without consideration of the claim language. The Examiner states "in claim 2, the "space vehicles having various technical characteristics" should be shown in the drawings. However, claim 2 does not recite this phrase. Here is the entire language of claim 2:

2. The method according to claim 1  
wherein said game elements are space  
vehicles.

The objection to the drawings is therefore not even based on the language of the claim, and thus should not be sustained.

With regard to claim 4, the Examiner states that the "technogenic object relating to space waste being captured on reaching position" must be shown. However, again, this is not an accurate quote of what claim 4 recites, and therefore is a defective manner of objecting to the claim. Claim 4 states:

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4. The method according to claim 3 wherein said game event assessment means is a space waste, said space waste being captured on reaching its position.

FIG. 5 and the brief description of that drawing shows the capture of space waste, for example.

Regarding claim 5, the "space vehicle" going the longest distance is shown in FIG. 6 and the brief description of that drawing.

Regarding claim 6, the "shortest distance" is shown in FIG. 7 and the brief description of that drawing.

Regarding claim 9, the dividing of the surface of the vehicle into game fields is shown in FIG. 8 and FIG. 1.

Regarding claim 12, the game event occurrence registration facility" as claimed is shown in most of the drawings as item 2.

It is respectfully submitted that the objection should be withdrawn, and the drawings show what is claimed, as since the Examiner is objecting to language that is not even present in some of the claims.

#### CONCLUSION

Applicants submitted an amendment after final which was not entered by the Examiner. However, in the advisory action, the Examiner raised points which the applicants feel must be addressed. The applicants have not introduced any changes into the materials of the application and the responses to the Office

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Actions are fully based on the primary text of the application as filed. These previous of applicants' explanations comprise no changes of the technical essence of the invention. In the responses the applicants have only submitted the list of additional sources of information, which show that the Examiner's opinion that the invention cannot be executed as it is disclosed in the primary materials has no base and does not correspond to the known prior art. At this, to respond to the Examiner's questions the applicant has used the whole abstracts from the description. To all the questions the applicants gave concrete replies, which cannot be interpreted in two ways.

To any person, not even specialist in the sphere of astronautics, having the secondary, not special education, it is clear that there are no technical difficulties to execute the racing in the space outside the Earth and register its results in the time of present art. Detecting of the particles hitting the outer surface of the space vehicle also cannot be impracticable because of known practice of conducting such a detecting and even the count of hits of such particles. There are the references to the corresponding sources of information in the primary description of the invention. Also, in the specification the applicants describe concrete examples of the apparatus that realizes this technical solution. It is only necessary to divide the surface of the space vehicle into game fields to realize the

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method in the part of detecting of the particles hits, but as far as the authors could understand, even this part of invention is considered by the Examiner as being impracticable. On the examiner's opinion it is practicable in the games of "Darts" type, but not in the applied method. Even ill-informed persons, and moreover the inventors, cannot understand the basis of such and similar conclusions of the Examiner. In spite of a big number of questions the Examiner could not logically explain what concretely it is that the Examiner considers the materials of the application to lack. The applicants have the impression that the Examiner did not wish to consider the technical essence of the invention from the very beginning but tried to demonstrate and certify the lack of the description by the mean of the number of questions useless for disclosure of the essence of the invention. But to the applicants' opinion it came of illogically and poor. All the Examiner's questions have only caused the authors' perplexity as the second Office Action was the exact copy of the first one and showed that the specialist of the US Patent Office respected by every inventor is not accepting the most general questions of astronautics. The questions comprised in the previous Office Actions were artificially far-fetched and caused only confusing of the clearness of the technical essence of the invention.

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Though the applicant had obtained the Patent of the Russian Federation for the same technical solution, identical to one submitted into the U.S. Patent and Trademark Office, he in his response to the final Official Action had narrowed the scope of claims by dividing the first independent claim into two. So, claim 1 of the previous wording of the claims was combined with the claim 2 and in the result there appeared the claim 17. Claim 1 was combined with the claim 9 and in the result there appeared the claim 26. The applicant used no new terms or concepts, not comprised in the claims 1, 2 and 9, while formulating the claims 17 and 26. However, the Examiner based his refusal to enter the amendments that the claim 26 provides new results, which were not set in the primary materials and need further considering and conducting the search. Easily fulfilled and formal combining of the claims by the applicant is legal and causes no additional patent search or change of the essence of the technical solution and also cannot cause appearance of any new subject of invention because no new terms or concepts were used in the new wording of the claims in result of simple change made in set order.

Thus, it is not clear what does the Examiner point to in his final refusal to consider the application, no new subject of the invention were added by the applicant into the application and scope of claims.

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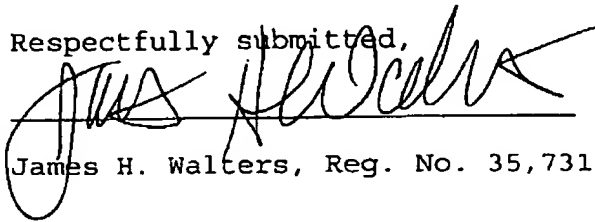
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To the applicants' opinion the refusal of the US Patent Office to consider the materials of the application is not based on the US Patent Law.

In view of the foregoing, it is submitted that claims 1-16 of this application are patentable and it is accordingly requested that the Examiner's final rejection be reversed and that allowance of this application be directed.

Respectfully submitted,

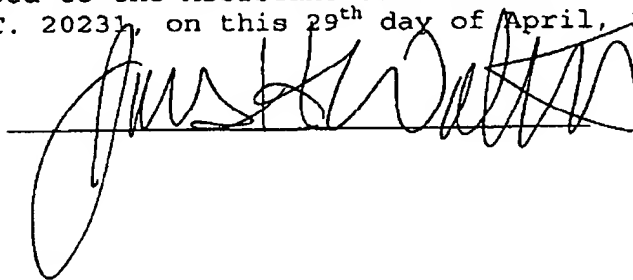


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I hereby certify that this correspondence is being deposited as first class mail with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D. C. 20231, on this 29<sup>th</sup> day of April, 2002.



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For: METHOD FOR PLAYING A SPACE GAME  
AND DEVICES FOR REALIZING THIS METHOD

APPENDIX OF CLAIMS

1. A method for playing a space game including the steps  
of:

accepting bets on a registration of a game event performed  
by game elements which are capable of moving in space;

registering a game event occurrence using a facility by a  
spatial position of the game elements relative to at least one  
game event assessment means located in the same space, and

allotting a payoff,

wherein the game elements and the game event assessment  
means are disposed in cosmic space outside the Earth, said  
registering of a game event occurrence by a facility being  
effected on the Earth.

2. The method according to claim 1 wherein said game  
elements are space vehicles.

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3. The method according to claim 2 wherein said registering of a game event occurrence is effected by a space vehicle which is the fastest to reach a position of the game event assessment means.

4. The method according to claim 3 wherein said game event assessment means is a space waste, said space waste being captured on reaching its position.

5. The method according to claim 2 wherein said registering of a game event occurrence is effected by a space vehicle which has gone the longest distance to the game event assessment device.

6. The method according to claim 2 wherein said registering of a game event occurrence is effected by a space vehicle which has gone at the shortest distance from the game event assessment means.

7. The method according to claim 2 wherein said game event assessment means is one of the solar system planets.

8. The method according to claim 2 wherein said game event assessment means is a space vehicle launched prior to said accepting of bets on a registration of a game event.



9. The method according to claim 1 wherein said game event assessment means is an external surface of a space vehicle, said surface being divided into game fields, the game elements being movable objects which are randomly moving in cosmic space, and said registering of a game event occurrence being effected when a movable object hits a game field.

10. The method according to claim 9 wherein said movable objects are meteorite particles.

11. The method according to claim 9 wherein said movable objects are space waste.

12. A device for playing a space game, comprising:  
game elements capable of moving in space;  
game event assessment means for assessing a spatial position of the game elements relative to said game event assessment means, disposed in the same space, and  
a game event occurrence registration facility,  
wherein the game elements and the game event assessment means are located in cosmic space, the game elements being space vehicles, the game event assessment means being an object of natural origin, and the game event occurrence registration facility being adapted to detect a game event occurrence in cosmic space outside the Earth and display the game event occurrence on the Earth.

13. A device for playing a space game, comprising:  
game elements capable of moving in space,  
game event assessment means for assessing a spatial position  
of the game elements relative to said game event assessment  
means, disposed in the same space, and  
a game event occurrence registration facility,  
wherein the game elements and the game event assessment  
means are located in cosmic space, the game elements being space  
vehicles, the game event assessment means being a technogenic  
object, and the game event occurrence registration facility being  
adapted to detect a game event occurrence in cosmic space outside  
the Earth and display the game event occurrence on the Earth.

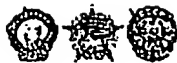
14. The device according to claim 13 wherein said  
technogenic object is a space vehicle.

15. The device according to claim 13 wherein said  
technogenic object is space waste, the game element being  
provided with means for capturing the space waste.

16. A device for playing a space game, comprising:  
game elements capable of randomly moving in space,  
game event assessment means for assessing a spatial position  
of the game elements on a surface of the game event assessment  
means, said surface being divided into game fields, and

a game event occurrence registration facility for registering a game event occurrence, such as hitting a game field by a game element,

wherein the game elements and the game event assessment means are located in cosmic space, the game elements being movable objects randomly moving in cosmic space, the game event assessment means being an external surface of a space vehicle, the game event occurrence registration facility being mounted on an external surface of the space vehicle and adapted to detect a game event occurrence in cosmic space outside the Earth and transmit game event occurrence data to the Earth.

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Федеральное  
государственное унитарное предприятие  
**НАУЧНО-ПРОИЗВОДСТВЕННОЕ  
ОБЪЕДИНЕНИЕ  
МАШИНОСТРОЕНИЯ**

143966, Московская область, г. Реутов-6, ул. Гагарина, 33  
телеграфный : Реутов Московской ВЕСНА (АТ348416)  
Тлф : (095) 528-30-18 ФАКС : (095) 302-20-01

Генеральному директору Патентно-  
Правовой фирмы "ЮЗ"  
**С.В.Ловцову**

*10 апреля* 2002 г.

№ 2-0/506

В ответ на Ваш запрос сообщаяю, что специалисты нашей корпорации в области создания и эксплуатации систем управления, систем измерений, систем обработки и передачи данных, приборов для космических аппаратов рассмотрели материалы патента России № 2169029 "Способ космической игры и устройство для его осуществления", дата регистрации 20.06.2001 года, международная заявка РСТ/RU 99/00144 и установили следующее:

1. Специалистам в области космической техники ясны способы реализации заявленного способа с помощью известных и широко используемых на космических аппаратах устройств.
2. Специалистам в области космической техники понятен текст заявки.
3. Данных, содержащихся в заявке достаточно для технической реализации "Способа космической игры и устройства для его осуществления".
4. Новая редакция описания заявки не изменяет существа и путей технической реализации "Способа космической игры и устройства для его осуществления".

От себя лично могу добавить, что мой многолетний опыт работы с фирмой Хьюз (Hughes) позволяет утверждать о ясности и понятности заявляемого способа для инженеров из США.

С уважением.

Заместитель Генерального конструктора,  
Научно-технический руководитель в отделе  
систем управления и приборов КА  
Кандидат технических наук, Доктор  
электротехники, член академии электротехники



*А.И.Бурганский*

Federalnoe  
Gosudarstvennoe unitarnoe predpriyatie  
**NAUCHNO-PROIZVODSTVENNOE**

**OBYEDINENIE**

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Patent & Law Firm "YUS"

Director General

**S.V.LOVTSOV**

April 10, 2002

No.2-01506

In response to your query inform you that the specialists of our corporation in the sphere of creation and exploitation of the control systems, measuring systems, systems of processing and transferring of information, devices for the space vehicles have considered the materials of the Patent of the Russian Federation No.2169029 "METHOD FOR PLAYING A SPACE GAME AND DEVICES FOR REALISING THIS METHOD" date of registration 20.06.2001, International Application No. PCT/RU99/00144 and found the following:

1. Methods for realization of the applied method by the means of known and widely used in the space vehicles devices are clear to the specialists in the sphere of space technology.

2. The text of the application is clear to the specialists in the sphere of space technology.

3. Information comprised in the application is enough for technical realization of "METHOD FOR PLAYING A SPACE GAME AND DEVICES FOR REALISING THIS METHOD".

4. New wording of the description of the application does not change the essence and the ways of the technical realization of "METHOD FOR PLAYING A SPACE GAME AND DEVICES FOR REALISING THIS METHOD".

From my own side I can add that my long term experience of co-operation with the firm HUGHES permits me to assert that the applied method is clear and plain to the engineers from the USA.

Sincerely,  
Assistant to the General Designer,  
Scientific and technical instructor of the Departments  
for Control systems and Space vehicles devices,  
Candidate of technical science,  
Doctor of electrotechnology, Member of  
Academy of Electrotechnology

Stamp

Signature

A.I.Burganski

МЕЖДУНАРОДНЫЙ НАУЧНО-ТЕХНИЧЕСКИЙ ЦЕНТР  
ПОЛЕТОК НАГРУЗОК КОСМИЧЕСКИХ УСТРОЙСТВ  
INTERNATIONAL PAYLOADS SCIENCE TECHNOLOGY CENTER

141000, Московская обл., Мытищин. Совмещенный аэродром

26.04.2002 № 259

**ЗАКЛЮЧЕНИЕ**  
научно-технического совета  
по заявке РСТ/RU99/00144

Научно-техническим советом МНТЦ ЕНКО рассмотрены материалы заявки РСТ/RU99/00144 и сделано следующее заключение:

1. Идея использования результатов экспериментов по исследованию воздействия (соударения) микрометеоритных частиц на поверхность космического летательного аппарата и рассматриваемого игрового события отличается новизной и оригинальностью.

Создание же на орбите игрового поля большой площади (до 40 м<sup>2</sup> и более) не только повысит вероятность регистрации события (соударения) на короткий промежуток времени, но и позволит начать проведение в космосе широкомасштабных экспериментов по уточнению модели космической среды для оценки безопасности космических полетов, так как игровое поле в сотни раз по площади больше, чем экспериментальные панели, используемые для регистрации микрометеоритных частиц в настоящее время, а по энергии спутарные можно будет охарактеризовать природу микрочастиц, т.е. ответить на вопрос космического или техногенного происхождения.

2. Изложенные в заявке технические решения реализуемы на современном уровне техники, что уже более 70 лет подтверждено экспериментально и по многочисленным публикациям известно широкому кругу лиц.

Председатель Совета  
Генеральный директор  
МНТЦ ЕНКО, профессор

Первый секретарь Совета,  
МНТЦ ЕНКО, Академии наук

В.П. Николаев

Л.О. Носов



*Handwritten signatures: "Nikolaev" and "Nosov"*

## INTERNATIONAL PAYLOADS SCIENCE TECHNOLOGY CENTER

26.04.2002 No.159

### CONCLUSION

of Scientific and Technical Council  
regarding the application PCT/RU99/00144

The Scientific and Technical Council of International Payloads Science Technology Center has considered the materials of the application No. PCT/RU99/00144 and made the following conclusion:

1. The idea to use the results of the experimental researches of the micrometeorite influence (hitting) upon the surface of the space vehicle and to consider it as the game event possesses novelty and originality.

Creation of the big area (up to 40 m<sup>2</sup> and more) of the game field in the orbit will not only increase the possibility of the event (hitting) registration for the short time period but will also permit to begin carrying out of the wide-scaled experiments in the cosmic space in respect of clarification of the space environment model for estimation of the space flies safety as the game field is hundred times bigger than the experimental panels still used for registration of the meteorite particles and the energy of hitting will help to determine the nature of the micro particle, i.e. answer the question if it is of cosmogenic or echnogenic nature.

2. The technical solutions set in the application are realizable at the present art. It is being experimentally confirmed for more than 20 years and is known to wide circle of people by multiple publications.

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Chairman of the council

Director General

Professor

Signature

V.P.Nikitsky

Scholar secretary

Candidate of Technical science

Signature

L.O.Neznamova